

PREVENTION

Factors associated with early sexual debut in Slovenia: results of a general population survey

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Objectives: To investigate time trends in age at first heterosexual intercourse (FHI) and associated factors. **Methods:** Data were collected from a national probability sample of the general population aged 18–49 years.

Results: Median age at FHI was 17 years for men and 18 years for women, but declined from 18 years to 17 years in men born after the early 1960s and in women born after the early 1970s. Early FHI (before age 16) was reported by 15.2% of men and 7.4% of women, but in recent cohorts (born 1975–82), proportions were similar in both sexes (16.9% and 14.4%, respectively). In women, higher educational level and acquiring most knowledge about sex from parents or in school were associated with later age at FHI. Half the women with early FHI judged the event to have occurred too soon. 4.2% of women with early FHI reported coercion at FHI, compared to 0.9% overall. The main factor associated with early FHI in men was not living with both parents up to the age of 15. Individuals with early FHI were more likely to report higher risk sexual behaviour as well as teenage motherhood and, for men, not having used a condom at FHI and bacterial sexually transmitted infections. Three in four individuals with early FHI thought they had inadequate sexual knowledge at FHI. Many would have liked to have learned more from parents and in school.

Conclusions: Improved sexual education among young Slovenians should aim to delay FHI until a more mature age and to be better prepared for safer sex.

Although HIV prevalence in Slovenia remains low, the burden of other sexually transmitted infections (STI) is substantial.^{1–3} In 2000, we estimated the national prevalence of genital *Chlamydia trachomatis* infection in a probability sample of 18–24 year old sexually active Slovenians as 4.7%, indicating serious gaps in prevention, diagnosis, and treatment.⁴ In contrast, the burden of teenage motherhood is relatively low (5.2 live births per 1000 women aged 15–19 in 2004).

Age at first heterosexual intercourse (FHI) is an indicator of the characteristics of adult sex life and early FHI (before age 16) is a risk factor for a range of adverse outcomes, including early pregnancy, multiple partnerships, and STI.^{5–9}

Our aim was to use data from the first National Survey of Sexual Lifestyles, Attitudes and Health in Slovenia to describe the distribution of age at FHI by calendar time, age and gender, to identify factors associated with early FHI and to explore association of early FHI with adverse outcomes later in life. We also assessed the proportion of individuals with very early FHI (before age 15, the age of consent in Slovenia).

METHODS

Details of the survey have been published previously.¹⁰ Briefly, we used stratified two stage probability sampling of 18–49 year old Slovenians with oversampling of the 18–24 year old age group. Data were collected between November 1999 and February 2001 at respondents' homes by a combination of face to face interviews and anonymous self administered pencil and paper questionnaires. Respondents were asked their age at FHI using a showcard in the face to face component of the interview. Those who reported this age were asked several questions about the FHI event. Questions about knowledge about sex at the time of FHI, most desired sources of information about sex, and

demographic characteristics were asked face to face. Questions about sexual lifestyle and STI were self administered.

Weights were computed to adjust for oversampling of the young, the differences in survey response, and any remaining differences between the achieved sample and available Slovenian population estimates according to statistical regions, types of communities, gender, and age groups, based on central population registry data for the year 2000.

Statistical analyses were performed using Stata version 7.0. Response rates were calculated from unweighted data. Weighted estimates of the cumulative proportions of respondents having experienced FHI by specified ages were obtained by Kaplan-Meier survival analysis with censoring at current age for individuals who had not yet experienced FHI. Respondents who were sexually active but who did not report their age at FHI were excluded. Cox regression based tests for equality of cumulative proportion curves (p_{CR}) were used to test for differences by gender and birth cohort. All other analyses were conducted using statistical methods for complex survey data to account for stratification, two stage sampling, and weighting. Univariate and multivariate analyses of association between early FHI and selected explanatory or outcome variables were performed by logistic regression to obtain pseudo-maximum likelihood estimates of odds ratios (OR) and adjusted OR (AOR) together with 95% confidence intervals (CI), and adjusted Wald tests of significance. Tests for trend (p_t) were based on inclusion of a linear term in the logistic regression model.

Abbreviations: AOR, adjusted odds ratio; CI, confidence interval; CR, Cox regression; FHI, first sexual intercourse; HIV, human immunodeficiency virus; OR, odds ratio; STI, sexually transmitted infections; UWT, unweighted; WT, weighted

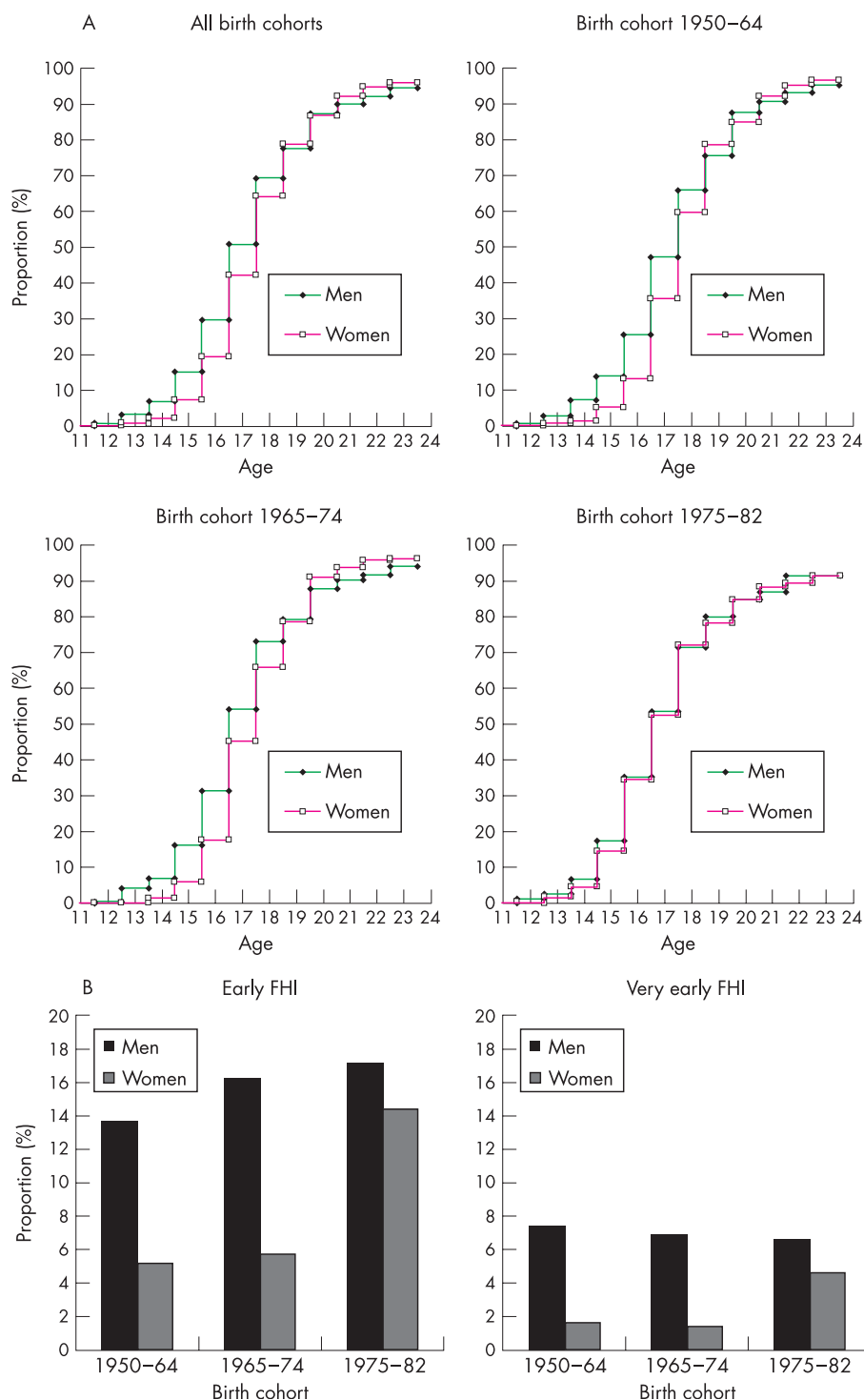


Figure 1 Age at first heterosexual intercourse (FHI). (A) Cumulative proportions of men and women in Slovenia who have experienced FHI by defined age overall and according to birth cohort. (B) Proportions of men and women in Slovenia who have experienced FHI early (before age 16) and very early (before age 15).

RESULTS

In all, 849 men and 903 women aged 18–49 years were interviewed. The overall survey response rate was 67.0% (63.3% among men, 70.9% among women). Of these, 92.3% of men and 93.9% of women reported their age at FHI, 7.1% of men and 5.8% of women reported not yet experiencing FHI, and 0.6% of men and 0.3% of women declined to answer.

The reported median age at FHI was 17 years for men (10th and 90th percentiles: 15, 21) and 18 years for women

(10th and 90th percentiles: 16, 21). It declined from 18 years in the early cohorts to 17 years for men born in 1965–9 or later and for women born in 1975–9 or later. Cumulative proportions of those having experienced FHI by defined ages are shown in figure 1A by gender and birth cohort. Men reported having experienced FHI at slightly younger ages than women, but this difference was not statistically significant either overall ($p_{CR} = 0.17$) or within birth cohorts (1950–64: $p_{CR} = 0.28$; 1965–74: $p_{CR} = 0.43$; 1975–82:

Table 1 Association of selected factors with early first heterosexual intercourse (FHI) (before age 16) for men and women in Slovenia

	FHI <age 16 %	Bases UWT, WT	OR	p Value (95% CI)	AOR*	p Value (95% CI)
Men						
Birth cohort (approximate age†)						
1950–64 (35–49)	13.7	321, 418	1	p=0.52	1	p=0.44
1965–74 (25–34)	16.2	195, 262	1.2	(0.7 to 2.0)	1.3	(0.8 to 2.2)
1975–82 (18–24)	17.1	327, 198	1.3	(0.8 to 2.0)	1.3	(0.8 to 2.2)
Education				p=0.36		p=0.24
<1st stage secondary	19.4	111, 113	1	p _t =0.04	1	p _t =0.10
1st or 2nd stage secondary	15.1	633, 638	0.7	(0.4 to 1.3)	0.7	(0.4 to 1.2)
Tertiary	12.3	95, 122	0.6	(0.3 to 1.2)	0.5	(0.2 to 1.2)
Religious affiliation						
Roman Catholic	12.6	559, 580	1	p=0.04	1	p=0.09
None	30.7	239, 250	1.6	(1.0 to 2.5)	1.5	(0.9 to 2.4)
Community size						
<100 000	14.5	733, 734	1	p=0.23	1	p=0.17
>100 000	18.7	110, 143	1.4	(0.8 to 2.2)	1.4	(0.9 to 2.3)
Living with both parents to age 15						
Yes	13.2	723, 704	1	p=0.003	1	p=0.004
No	24.5	154, 139	2.1	(1.3 to 3.5)	2.1	(1.3 to 3.4)
Main information source about sex						
First partners/peers/other	16.7	624, 651	1	p=0.25	1	p=0.25
Parents	11.0	103, 109	0.6	(0.3 to 1.4)	0.6	(0.3 to 1.3)
School	11.4	106, 107	0.6	(0.3 to 1.2)	0.6	(0.3 to 1.3)
Women						
Birth cohort (approximate age †)				p<0.001		p<0.001
1950–64 (35–49)	5.2	358, 416	1	p _t <0.001	1	p _t <0.001
1965–74 (25–34)	5.7	214, 255	1.1	(0.5 to 2.3)	1.4	(0.7 to 3.0)
1975–82 (18–24)	14.4	325, 190	3.1	(1.8 to 5.4)	4.7	(2.5 to 8.8)
Education						
<1st stage secondary	15.5	154, 159	1	p<0.001	1	p<0.001
1st or 2nd stage secondary	5.6	579, 524	0.3	(0.2 to 0.6)	0.2	(0.1 to 0.3)
Tertiary	5.4	162, 176	0.3	(0.1 to 0.8)	0.2	(0.1 to 0.5)
Religious affiliation						
Roman Catholic	6.7	588, 577	1	p=0.21	1	p=0.66
None	9.0	266, 260	1.4	(0.8 to 2.3)	1.1	(0.6 to 2.0)
Community size						
<100 000	6.3	753, 696	1	p=0.02	1	p=0.004
>100 000	12.0	144, 165	2.0	(1.1 to 3.7)	2.5	(1.3 to 4.8)
Living with both parents to age 15						
Yes	6.7	754, 723	1	p=0.12	1	p=0.10
No	10.8	143, 138	1.7	(0.9 to 3.2)	1.7	(0.9 to 3.3)
Main information source about sex						
First partners/peers/other	9.5	524 515	1	p=0.008	1	p<0.001
Parents	4.0	277, 261	0.4	(0.2 to 0.8)	0.3	(0.1 to 0.6)
School	4.1	87, 77	0.4	(0.2 to 1.1)	0.3	(0.1 to 0.9)
Age at menarche						
13 years or older	6.2	628, 610	1	p=0.03	1	p=0.05
<13 years old	10.3	253, 237	1.7	(1.0 to 2.9)	1.7	(1.0 to 2.9)

FHI, first heterosexual intercourse; UWT, unweighted count of individuals; WT, weighted count of individuals; OR, odds ratio; CI, confidence interval; AOR, adjusted OR. *Adjusted for all variables except for religion; †approximate age at interview. ‡trend.

All individuals who refused to report the age at FHI and four individuals who reported FHI at a younger age than first heterosexual experience were excluded from analyses. Numbers of individuals (bases) vary according to the number of missing values for individual variables. 85 individuals with other than Roman Catholic religious affiliation were excluded from the analysis of association of religious affiliation with early FHI. Only 863 men and 838 women (unweighted counts) without missing values for any of the variables in the model were included in multivariate analyses. The results of univariate analyses from thus restricted data are not shown, but are very similar to those shown.

$p_{CR} = 0.78$). Among both men and women, the reported ages at FHI have been declining with the more recent birth cohorts, but the overall observed decline was not statistically significant for either gender, although of borderline significance for women ($p_{CR} = 0.68$; $p_{CR} = 0.08$).

Overall, 15.2% (CI 12.7% to 18.1%) of men and 7.4% (CI 5.8% to 9.3%) of women reported experiencing FHI early (before age 16), and 7.0% (CI 5.1% to 9.4%) of men and 2.2% (CI 1.4% to 3.3%) of women very early (before age 15). The proportion of individuals with early FHI increased from 13.7% among men born during 1950–64 to 17.1% among men born during 1975–82 and among women from 5.2% to 14.4%, respectively (fig 1B), the difference being statistically significant only for women ($p = 0.52$; $p < 0.001$). Similar results were obtained by comparing the cumulative proportion curves for reported age of FHI truncated at age 16 ($p_{CR} = 0.54$; $p_{CR} < 0.001$). The gender gap for early FHI in

earlier birth cohorts has been closing in later birth cohorts. Statistically significant differences by gender in the cumulative proportion curves for the reported age of FHI truncated at age 16 for two earlier birth cohorts, 1950–64 and 1965–74 ($p_{CR} < 0.001$; $p_{CR} = 0.001$), disappeared for the 1975–82 birth cohort ($p_{CR} = 0.34$). Similarly, the proportion of women with very early FHI increased from 1.6% among those born during 1950–64 to 4.6% among those born during 1975–82 ($p = 0.04$). In contrast, the proportion of men with very early FHI remained stable varying between 7.3% among those born during 1950–64 and 6.6% among those born during 1975–82.

The results of univariate and multivariate analyses exploring the association of selected factors with early FHI are presented in table 1. Women born recently had significantly higher odds of having experienced FHI before age 16 (born in 1975–82: AOR 4.7; CI 2.5 to 8.8 compared with born in 1950–64). Other risk factors significantly associated with early FHI

Table 2 Association of early first heterosexual intercourse (FHI) (before age 16) with higher risk sexual behaviours, teenage parenthood, and self reported sexually transmitted infections among sexually experienced men and women in Slovenia; univariate analyses

	FHI < age 16				p Value	Bases UWT,WT
	No		Yes			
	%	95% CI	%	95% CI		
Men						
Not used condom at FHI	75.1	(71.5 to 78.3)	83.5	(67.8 to 88.5)	0.03	779, 830
Teenage fatherhood	4.2	(2.7 to 6.5)	4.6	(1.7 to 11.8)	0.88	783, 836
2+ female partners last year	20.8	(17.5 to 24.6)	34.1	(26.5 to 42.5)	0.001	749, 794
10+ female partners lifetime	23.8	(20.3 to 27.6)	57.9	(43.4 to 66.9)	<0.001	749, 792
At least 1 self reported bacterial STI* lifetime	4.0	(2.5 to 6.5)	9.0	(4.8 to 16.3)	0.04	741, 788
Women						
Not used condom at FHI	79.0	(76.0 to 81.7)	75.9	(64.6 to 84.4)	0.53	844, 829
Teenage motherhood	17.4	(14.6 to 20.7)	27.8	(17.9 to 40.5)	0.05	848, 832
2+ male partners last year	5.9	(4.5 to 7.7)	18.5	(11.8 to 27.9)	<0.001	837, 823
10+ male partners lifetime	5.0	(3.6 to 7.0)	14.9	(8.2 to 25.7)	0.001	829, 814
At least 1 self reported bacterial STI* lifetime	1.9	(1.1 to 3.3)	1.1	(0.2 to 7.6)	0.61	794, 776

CI, confidence interval; FHI, first heterosexual intercourse; STI, sexually transmitted infections. *Self reported bacterial STI included syphilis, gonorrhoea, genital infection with *Chlamydia trachomatis*, and non-specific urethritis. All individuals who reported not having experienced FHI and all who refused to report the age at FHI were excluded from analyses. Numbers of individuals (bases) vary according to the number of missing values for individual variables.

among women were early age at menarche (AOR 1.7; CI 1.0 to 2.9) and living in the two largest cities (AOR 2.5; CI 1.3 to 4.8). Women with higher educational level had significantly lower odds of early FHI (AOR 0.2; CI 0.1 to 0.3; AOR 0.2; CI 0.1 to 0.5 for secondary and tertiary education compared with primary, respectively) as were women who had acquired most of their sexual knowledge from authoritative sources rather than from their first sexual partners, peers, or siblings (from parents: AOR 0.3; CI 0.1 to 0.6; from school: AOR 0.3; CI 0.1 to 0.9). Although the trends were in the same direction, none of these factors were statistically significantly associated with early FHI in men in whom the only significant factor was not living with both biological parents up to the age of 15: AOR 2.1; CI 1.3 to 3.4 in comparison to others. Catholic religion was not identified as a protective factor against early FHI in multivariate analyses, although fewer Catholics reported early FHI (12.6% of men; 6.7% of women) than individuals without religious affiliation (30.7% of men; 9.0% of women).

A relatively small proportion of men with early FHI judged the event to have occurred too soon (16.1%; CI 10.4% to 24.1%) in contrast with half the women (49.9%; CI 37.7% to 62.2%). There was no evidence that these proportions have changed substantially over time. Among women, 17.7% (CI 9.5% to 30.6%) of those with early FHI and 32.7% (CI 14.4% to 58.4%) of those with very early FHI reported that they had been persuaded to have sex by their first partner. In general, coercion at FHI (the question was "would you say ... that you were forced?") was rare (0.9%; CI 0.4% to 2.0%), but among women with early FHI, 4.2% (CI 1.0% to 15.6%) reported having been forced and among those with very early FHI this rose to 15.5% (CI 3.9% to 45.2%).

At the time of their FHI, approximately three in four young people with early FHI perceived themselves to have been inadequately prepared in terms of knowledge about sex. Among these, a sizeable proportion thought that they should have known more about contraception (35.2%; CI 25.9% to 45.8% of men and 40.3%; CI 27.2% to 54.9% of women) and STI (58.0%; CI 47.5% to 67.9% of men and 41.4%; CI 28.2% to 56.0% of women). Among those who claimed to have insufficient knowledge, many would have liked to have learned more from authoritative sources such as parents (especially mothers), school, and healthcare institutions (parents were the first or second preference for 47.3%; CI 36.8% to 58.1% of men and 62.0%; CI 47.6% to 74.6% of women and school was the first or second preference for

18.7%; CI 12.1% to 27.8% of men and 17.6%; CI 9.2% to 31.0% of women).

Table 2 shows associations of early FHI with selected sexual behaviour patterns, teenage parenthood, and bacterial STI. Men with early FHI were more likely not to have used a condom at FHI than those with later FHI (83.5% v 75.1%; $p = 0.03$). However, in multivariate analyses exploring the independent effects of this and other factors, early FHI was not identified as an independent risk factor for not using a condom.¹⁰ There was little difference in condom use at FHI by age at FHI among women, but women with early FHI were more likely to report having been a teenage mother than those with later FHI (27.8% v 17.4%; $p = 0.05$). Among both men and women, those who had early FHI reported more heterosexual partners both in the past year and in their lifetime. In addition, the proportion of men who reported having been diagnosed with at least one bacterial STI was higher in men with early FHI in comparison with those with later FHI. Similarly, 18–24 years old respondents with early FHI had a higher prevalence of genital *Chlamydia trachomatis* infection in comparison with others (6.4% v 3.6%), although, this difference was not statistically significant.⁴

The association of recent and lifetime higher numbers of sexual partners with early FHI and selected demographic characteristics are presented in table 3. In comparison with individuals experiencing FHI at a more mature age, those reporting early FHI had higher odds for at least two heterosexual partners during the year preceding the survey (males: AOR 2.2; CI 1.4 to 3.5; females: AOR 2.4; CI 1.2 to 5.0) and for at least 10 lifetime heterosexual partners (males: AOR 4.7; CI 3.0 to 7.5; females: AOR 4.0; CI 1.8 to 8.9). Other factors significantly associated with recent multiple partnerships for both genders were current marital status and, among men, higher attained education. Factors associated with at least 10 lifetime heterosexual partners were current marital status and, among women, higher attained education.

DISCUSSION

Among the birth cohorts surveyed in our study (1950–82), the median age at FHI declined from 18 years in the early cohorts to 17 years for men born after early 1960s and for women born after early 1970s. Similar results were reported by the Slovenian National Fertility Survey and two surveys of secondary school students.^{11–13} In previous European national sexual behaviour surveys which enrolled individuals born

Table 3 Association of early first heterosexual intercourse (FHI) (before age 16) and selected demographic characteristics with multiple heterosexual partners last year and 10 or more lifetime heterosexual partners among sexually experienced men and women in Slovenia; multivariate analysis

	2+ heterosexual partners last year				10+ heterosexual partners lifetime			
	%	Bases UWT, WT	Adjusted* OR	p Value (95% CI)	%	Bases UWT, WT	Adjusted* OR	p Value (95% CI)
Men								
Birth cohort (aget)								
1950–64 (35–49)	17.4	289, 388	1	0.48	31.8	295, 383	1	0.02
1965–74 (25–34)	22.0	179, 241	0.7	(0.4 to 1.2)	29.9	180, 243	0.7	(0.4 to 1.2)
1975–82 (18–24)	37.6	272, 165	0.8	(0.4 to 1.4)	22.6	274, 166	0.4	(0.2 to 0.7)
Marital status								
Married	12.7	302, 393	1	<0.001	28.4	296, 384	1	0.03
Cohabiting	17.1	89, 104	1.5	(0.8 to 3.1)	33.7	90, 105	1.4	(0.8 to 2.6)
Widowed/divorced/ separated	48.6	10, 14	7.8	(2.3 to 27.1)	56.8	12, 17	4.6	(1.4 to 14.7)
Single	38.5	347, 282	5.5	(2.9 to 10.4)	27.3	350, 284	1.6	(0.9 to 2.9)
Education								
<2nd stage secondary	17.7	328, 346	1	0.02	27.2	329, 345	1	0.28
2nd stage secondary	27.7	327, 328	1.7	(1.1 to 2.6)	31.5	325, 326	1.4	(0.9 to 2.1)
Tertiary	26.1	92, 119	1.9	(1.0 to 3.7)	29.5	93, 120	1.1	(0.6 to 1.9)
Early FHI (before age 16)								
No	20.8	621, 664	1	0.001	23.8	662, 664	1	<0.001
Yes	34.1	128, 130	2.2	(1.4 to 3.5)	57.9	127, 128	4.7	(3.0 to 7.5)
Women								
Birth cohort (aget)								
1950–64 (35–49)	2.1	355, 412	1	0.39	6.3	350, 406	1	0.03
1965–74 (25–34)	5.1	212, 252	1.7	(0.5 to 5.7)	4.9	210, 250	0.4	(0.2 to 1.1)
1975–82 (18–24)	22.0	270, 159	2.2	(0.7 to 7.4)	5.8	269, 157	0.2	(0.1 to 0.7)
Marital status								
Married	1.5	445, 506	1	<0.001	3.5	440, 501	1	0.01
Cohabiting	2.7	109, 102	1.2	(0.2 to 6.0)	6.3	108, 100	2.5	(1.0 to 6.5)
Widowed/divorced/ separated	10.5	27, 34	12.2	(2.6 to 57.0)	15.0	27, 34	4.8	(1.5 to 15.8)
Single	23.4	256, 181	11.6	(4.0 to 33.6)	10.1	254, 179	6.8	(2.5 to 18.5)
Education								
<2nd stage secondary	5.8	303, 307	1	0.49	3.9	301, 304	1	0.003
2nd stage secondary	9.3	374, 342	1.1	(0.6 to 2.2)	4.2	369, 337	1.1	(0.5 to 2.5)
Tertiary	4.0	159, 173	0.6	(0.2 to 1.9)	12.3	158, 172	3.2	(1.5 to 7.0)
Early FHI (before age 16)								
No	5.9	764, 760	1	0.02	5.0	757, 752	1	<0.001
Yes	18.5	73, 63	2.4	(1.2 to 5.0)	14.9	72, 62	4.0	(1.8 to 8.9)

UWT, unweighted count of individuals; WT, weighted count of individuals; OR, odds ratio; CI, confidence interval; FHI, first heterosexual intercourse. *Adjusted for all other variables in the table. †Approximate age at interview. All individuals who reported not having experienced FHI and all who refused to report the age at FHI were excluded from univariate analyses. Numbers of individuals (bases) vary according to the number of missing values for individual variables. Only 730 men and 819 women (unweighted counts) without missing values for any of the variables in the model were included in the multivariate analyses for the outcome 2+ heterosexual partners past year and only 731 men and 812 women (unweighted counts) without missing values for any of the variables in the model were included in the multivariate analyses for the outcome 10+ lifetime heterosexual partners.

from the 1930s to the early 1970s, the median age at FHI has fallen by at least 2 years and in some countries by 4 years. Comparing the same birth cohorts, the median age at FHI tended to be slightly higher in Slovenian men and about the same or slightly higher in Slovenian women than in most European countries.⁶

Early FHI has recently become more common among women and the previous gender gap among those born during the 1950–74, has closed among young Slovenians born during 1975–82. Among the latter, one in six men and one in seven women experienced early FHI, and one in 15 men and one in 22 women very early FHI. Similar estimates were reported by the Slovenian National Fertility Survey.¹¹ Comparing our results with European national general population sexual behaviour surveys for the same birth cohorts (1950s–70s), corresponding proportions were much lower in Slovenia than in most European countries.⁶

Women who had reached their physical sexual maturity sooner, and lived in the two biggest cities, were at a higher risk for early FHI, while higher attained educational level and acquiring most knowledge about sexual matters from authoritative sources such as parents and school had a protective effect. The only identified risk factor for early FHI

among men in our study was not living with both biological parents up to the age of 15. A similar unfavourable effect of disrupted family structure in childhood and early adolescence and favourable effects of higher education and receiving information about sexual matters in schools were reported by other European studies.^{6–9} In contrast, our results failed to show that Roman Catholics were less likely to experience early FHI than those without religious affiliation^{6–14}; however, analysing the strength of religious belief might have given different results.¹⁵

Early FHI was less often protected against unwanted pregnancy and STI, and was associated with teenage motherhood, higher risk sexual behaviour later in life, and bacterial STI in men, similar to the results of other European studies.^{5–7,9,16–18} Men and women reporting early FHI had approximately two times higher odds for at least two heterosexual partners during the year preceding the survey in comparison with others. Recent multiple partnerships were most strongly associated with current marital status, reflecting the availability of a steady sexual partner, and was not associated with age at the survey or birth cohort.

A high proportion of women with early FHI (49.9%) in comparison with 16.1% of men judged the event to have

Key messages

- Early first heterosexual intercourse (FHI) (before age 16) has recently become more common among Slovenian women (reported by 17% of men and 14% of women born during 1975–82), reducing the former gender gap. Women with higher education and those who acquired most knowledge about sex from parents and in school were less likely to experience early FHI
- Half the women with early FHI judged the event to have occurred at too young an age. One in 20 women with early FHI and one in six with very early FHI (before age 15) reported coercion at FHI in comparison to fewer than 1% overall
- Individuals with early FHI were more likely to report being sexually more active later in life
- Three in four individuals with early FHI felt they had inadequate sexual knowledge at the time of FHI (including knowledge about contraception and STI) and many of these would have liked to have learned more from parents and in school

occurred too soon. Similar estimates were reported from the United Kingdom.¹⁹ Notably, almost one in 22 women with early FHI reported having been forced and among those with very early FHI almost one in six. In addition, approximately one in six women with early FHI and one in three women with very early FHI reported that they had been persuaded to have sex by their first partner.

It is of concern that some three in four respondents with early FHI perceived themselves as inadequately prepared in terms of knowledge about sex at the time of FHI. Many of these lacked knowledge about contraception and STI. Notably, the majority of those who reported lack of knowledge expressed a preference for more authoritative sources of sex related information such as parents (especially mothers) and schools. Similar results were reported in the United Kingdom.²⁰

Limitations of our survey included validity constraints on self reported information and possible participation biases that are inherent in all such surveys.

Slovenian men and women expressed their need to be better prepared for sex before becoming sexually active. Schools were reported as one of the most desired sources of such information. It is unacceptable that sex education has not been introduced in Slovenian primary schools' curriculum, while, for example in the United Kingdom, national sex and relationships education in school guidelines have been developed and the current focus is on obtaining evidence for the most effective approaches by conducting randomised controlled intervention trials.^{21–23} The development of a national sexual health promotion strategy is a public health priority. Interventions should aim to delay FHI until a more mature age, to empower women to avoid unwanted sex, and to better prepare young Slovenians for safer sex.

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CONTRIBUTORS

IK designed and coordinated the implementation of this study, analysed and interpreted the data and wrote the manuscript; LCR and RH participated in the design of the study, interpretation of the results, and preparation of this paper; HW provided statistical advice, participated in the interpretation of the results, and preparation of this paper.

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